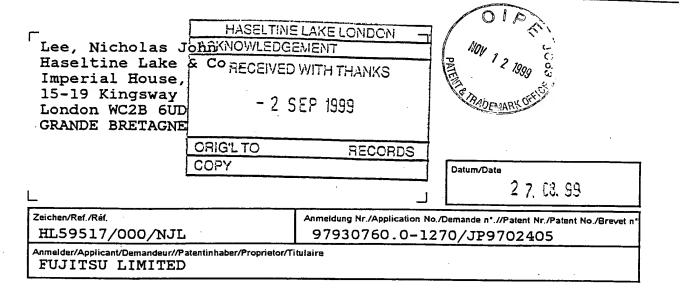


P.B. 5818 - Patentlaan 2 2280 HV Rijswijk (ZH) (070) 340 2040 Tx 31651 epo nl FAX (070) 340 3016 Europaisches
Patentamt
Zweigstelle in
Den Haag
Recherchenabteitung

Parent Office
Branch at
The Hague
Search
Division

Office européen des brevets Département à La Haye Division de la recherche



#### COMMUNICATION

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

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If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

TECHNOLOGY CENTER 2800

The abstract was modified by the Search Division and the definitive text is attached to the present communication.

Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

27. C8. 39 Mo 1#

### Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

REGISTERED LETTER



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# SUPPLEMENTARY PARTIAL EUROPEAN SEARCH REPORT

**Application Number** 

under Rule 46, paragraph 1 of the European Patent EP 97 93 0760 Convention

	Citation of document with indic	ation, where appropriate	Palcyant	CI ACCIEICATION OF THE
Category	of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
x I	PATENT ABSTRACTS OF J	APAN	1,2,11,	H01L21/56
·	vol. 016, no. 130 (E-		18	H01L21/60
	2 April 1992 (1992-04		1-0	H01L23/28
	& JP 03 293740 A (CAS			B29C43/18
	25 December 1991 (199	1-12-25)		029043/10
۱ ۹	* abstract *	- 11 10,	3-10,12,	
			19-28.	
		· ·	41-43	
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(	US 4 172 907 A (KEEFE		1,2,11,	
,	30 October 1979 (1979	-10 <b>-</b> 30 <i>)</i>	18	
4	* abstract *		3-10,12,	
	•		19-28, 41-43	
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	28 April 1995 (1995-04			,
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			19-28, 41-43	H01L
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1 0017	OF HARDY OF WARRIES			
	OF UNITY OF INVENTION			
the require	th Division considers that the present Euro ements of unity of invention and relates to	pean patent application does not comply severalinventions or groups of inventions	with ,	
namely:				
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The prese	nt partial European search report has bee plication which relate to the invention first r	n drawn up for those parts of the Europea	ın	
and in app	Place of search	Date of completion of the search		Examiner
	MUNICH	12 August 1999	Bek	kering, R
C/	ATEGORY OF CITED DOCUMENTS	T : theory or principle		
X : parti	cularly relevant if taken alone	E : earlier patent doc after the filing date D : document cited in	•	sned on, or
Y : parti	cularly relevant if combined with another ment of the same category			
		L : document cited fo		
A: tech	nological background written disclosure	& : member of the sa		

#### European Patent PARTIAL EUROPEAN SEARCH REPORT

Application Number

EP 97 93 0760

	DOCUMENTS CONSIDERED TO BE RELEVAN	CLASSIFICATION OF THE APPLICATION (Int.CI.6)	
ategory	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	PATENT ABSTRACTS OF JAPAN vol. 017, no. 257 (E-1368), 20 May 1993 (1993-05-20) & JP 05 003183 A (NEC CORP), 8 January 1993 (1993-01-08)	18,42,43	
	* abstract *	1-12, 19-28,41	
·			
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
	<del>-</del>	-	
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## LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 97 93 0760

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-12,18-28,41-43

Claims 1-12,18-28,41-43 relate to a method (claims 1-12,20-28) comprising resin sealing a substrate, exposing the protruding electrodes and cutting the resin sealed substrate to separate the semiconductor elements, to a semiconductor element having a resin seal and protruding electrodes (claims 18,19,41-43).

2. Claims: 13-17

Claims 13-17 relate to a mold.

3. Claims: 29,34,35

Claims 29,34,35 relate to a method of first separating the semiconductor elements having protruding electrodes and then resin sealing them.

4. Claims: 30-33,36-40

Claims 30-33,36-40 relate to a method of first resin sealing a substrate with semiconductor elements followed by cutting the substrate in positions where external electrodes are formed and a semiconductor elements having laterally exposed external electrodes.

5. Claims: 44-53

Claims 44-53 relate to a method of resin sealing a wiring board on which a semiconductor element and leads are arranged.

6. Claims: 54-56

Claims 54-56 relate to a method of resin sealing a wiring board having extending portions on which a semiconductor element and leads are arranged.

7. Claims: 57-72

Claims 57-72 relate to a resin sealed electrode plate (claims 57-64) with a single or a plurality of semiconductor elements and external connection electrodes at side surfaces, a fabrication method (claims 65-69) and a mounting arrangement (claims 70-72).



## LACK OF UNITY OF INVENTION SHEET B

Application Number EP 97 93 0760

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

8. Claims: 73-78

Claims 73-78 relate to a resin sealed semiconductor element (claims 73-77) attached to an interposer by an anisotropic conductive film and a fabrication method (claim 78).

9. Claims: 79-86

Claims 79-86 relate to a resin sealed semiconductor element (claims 79-85) attached to an interposer by an adhesive film and a fabrication method (claim 86).

The separate groups of inventions are not so linked as to form a single general inventive concept, contrary to the requirements of Article 82 EPC, resin sealing of a semiconductor element having protruding electrodes being already known from the prior art (JP-A-3 293 740).

#### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 97 93 0760

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-08-1999

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